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| APPLICATION NO.                 | FILING DATE      | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---------------------------------|------------------|----------------------|-------------------------|------------------|
| 10/773,158                      | 02/09/2004       | Mitsuyuki Taniguchi  | 1785.1003               | 5467             |
| 21171                           | 7590 04/29/2005  |                      | EXAMINER                |                  |
| STAAS & HALSEY LLP<br>SUITE 700 |                  |                      | HYEON, HAE M            |                  |
|                                 | ORK AVENUE, N.W. |                      | ART UNIT                | PAPER NUMBER     |
| WASHINGTON, DC 20005            |                  |                      | 2839                    |                  |
|                                 |                  |                      | DATE MAILED: 04/29/2005 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)                   |  |  |  |  |
|--|---|--------------------------------|--|--|--|--|
| Office Action Summany  | 10/773,158  | TANIGUCHI ET AL.               |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit                       |  |  |  |  |
|  | Hae M. Hyeon  | 2839                           |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c                                  | orrespondence address          |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                                |  |  |  |  |
| Status   |   |                                |  |  |  |  |
| 1) Responsive to communication(s) filed on <u>09 February 2004</u> .   |   |                                |  |  |  |  |
| 2a) ☐ This action is FINAL. 2b) ☒ This   | This action is FINAL. 2b)⊠ This action is non-final.                |                                |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |                                |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |                                |  |  |  |  |
| Disposition of Claims  | •   | . •                            |  |  |  |  |
| 4)⊠ Claim(s) <u>1-11</u> is/are pending in the application.  |   |                                |  |  |  |  |
| 4a) Of the above claim(s) is/are withdraw  | 4a) Of the above claim(s) is/are withdrawn from consideration.      |                                |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |                                |  |  |  |  |
| 6)⊠ Claim(s) <u>1-11</u> is/are rejected.  |   | ·                              |  |  |  |  |
| 7) Claim(s) is/are objected to.  |   |                                |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | 8) Claim(s) are subject to restriction and/or election requirement. |                                |  |  |  |  |
| Application Papers   |   |                                |  |  |  |  |
| 9)⊠ The specification is objected to by the Examiner.  |   |                                |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>09 February 2004</u> is/are: a)⊠ accepted or b)⊡ objected to by the Examiner.  |   |                                |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |                                |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                                |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                                |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |                                |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |                                |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |                                |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |                                |  |  |  |  |
|  |   |                                |  |  |  |  |
| Attachment(s)  |   |                                |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  | 4) Interview Summary  |                                |  |  |  |  |
| <ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)         Paper No(s)/Mail Date 2/9/04.     </li> </ol>   | Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:              | te atent Application (PTO-152) |  |  |  |  |

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#### **DETAILED ACTION**

## Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Grounding Mechanism for Electric Motor with Encoder.

### Claim Objections

- 2. Claims 2-11 are objected to because of the following informalities:
  - Claims 2-11, line 1, "An assembly" should be -- The assembly --.
  - Claim 10, lines 3-5 recites, "a conductive fastening element securing said circuit board
    onto said frame member while conducting with said conductor." The examiner suggests
    the applicant to change the phrase "while conducting" to -- while brought into
    conductive contact --.

Appropriate correction is required.

#### Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szudarek et al (5,608,611) in view of Ohsawa et al (US Patent Application Publication No. 2002/0155738

A1).

Szudarek discloses an assembly comprising a metal motor housing 36; an electronic module 39 including a metal frame 30, a metal cover 32 and a circuit board 10 supported on the frame 30; a board connector 12 for connecting with an output signal cable; and a screw (connecting element) 28 for connecting the frame 30 onto the motor housing 36. The circuit board 10 includes a ground conductor 16, a land 27 for connecting to the conductor 16 and the connecting element 28, and a plated through-hole 26. The connector 12 is mounted on the circuit board 10 and connected to the output signal cable. The screw 28 is passed through a hole 38 on the cover, the plated through-hole 26 on the circuit board 10, and a plated through-hole 40 on the frame 30, and connected to the motor housing 36. However, Szudarek does not disclose the output signal cable having a shield member that is connected to the conductor 16 of the circuit board 10. Also, Szudarek does not state the electronic module 39 to be an encoder, but the only difference is the electronic components inside the module. However, the method of grounding the frame to the motor housing remains unchanged.

Ohsawa discloses a shield cable comprising a signal wire 16 and a shield member 17 for shielding the signal wire 16 and grounding the cable.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the cable in the assembly taught by Szudarek such that it would have a shield member as taught by Ohsawa because the shield member would shield the cable and provide grounding of the cable.

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Regarding to claim 4, it only deals with the use of different type of connector, which does not affect or change the function of the assembly.

#### Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 4,570,338 by Ignatowicz, US Patent No. 4,650,274 by Schmid, US Patent No. 4,927,367 by Salvagno, US Patent No. 5,429,512 by Sawamura, US Patent No. 5,458,512 by Takano et al., US Patent No. 6,319,018 B1 by Daoud and US Patent No 6,611,429 B2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Hae M Hyeon Primary Examiner Art Unit 2839

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Hae Moon Hyeon